AN ANALYSIS OF THE TENDENCY OF INDUSTRIAL CORPORATIONS TO ACT AS FINANCIAL INTERMEDIARIES

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CHAPTER I

INTRODUCTION

I. THE PROBLEM

There appears to be a tendency for the industrial corporation to utilize its assets for investments not concerned with production of goods with its own facilities. This study proposed first to determine if a tendency to invest in other than production facilities and goods exists and, then, to determine the extent and trend of such a tendency.

II. METHODOLOGY OF ANALYSIS

One hundred companies are included in this study. The one hundred companies were selected from the August 1964 _Fortune 500 Directory of the 500 Largest U. S. Industrial Corporations_ for 1963. The individual companies included in the study were selected by taking the first company named in the _Fortune 500_ listing of August 1964 and each fifth company listed thereafter. If full data are not reported in _Moody's Industrial Manual_[1] on a selected company,

[1]John Moody, _Moody's Industrial Manual_ (New York: Moody Publishing Company, 1956, 1957, 1958, 1964, 1965).

the next company named in the Fortune listing on which Moody's reported in full was used as a substitute.[1]

The Fortune 500 listing is made in the order of size by total sales from largest to smallest. The selection of each fifth company in the Fortune 500 allows representation of a maximum range of size of individual companies in the study. The sample includes companies in many specific businesses.

This study proposes to examine industrial corporation balance sheets on an item-by-item basis and to determine similarities and differences in the financial structure of the companies to be studied.

The individual companies are listed in one of two groups on the basis of similarity of extent of investment in marketable securities. The composite financial structure of the two groups are then compared on an item-by-item basis.

To measure the balance sheet structure of industrial corporations, the following items are examined:

- Assets
  - Current Assets
    - Cash
    - Marketable Securities

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[1]The sample is based on the 1963 Fortune 500 listing and the 1964 Moody's Industrial Manual.

Receivables

Subsidiaries (nonconsolidated)

Inventory

Fixed Assets

Net Property

Total Assets

Liabilities

Current Liabilities

Long-Term Debt

Preferred Stock

Stockholders' Equity

The foregoing items compose the major items of all balance sheets analyzed, and the total of these assets and liabilities leaves an insignificant remainder. This remainder will be treated as "other" assets or liabilities in this study.

Data on each of the items to be examined for each of the selected companies were extracted for the years 1955 through 1964 from Moody's Industrial Manuals. The data contained in Moody's were extracted from each company's 10-K annual report to the Securities and Exchange Commission.

The data for the ten years were extracted on a company-by-company basis. Each company was placed in one of the two groups on the basis of having 10% or more of total assets in marketable securities at the end of 1964 or of having less than 10% of total assets in marketable securities. The grouping, on the basis of relative amount of assets in marketable securities, put 22 companies in the group having more than 10% of assets in marketable securities and 78 companies in the second group. The data on each company were accumulated on an item basis, such as cash for all companies in Groups I and II, from the individual balance sheets which had been extracted. The composite items were then accumulated into composite balance sheets for each group for the ten years studied.

The basic method of analysis is the consideration of similarity and dissimilarity between the two groups. Comparisons of companies that have similarities to other companies, such as by industry or ownership, are made. Trends in individual items are considered. Each item is examined in relation to the variables which may be related to determine correlations.

This study compares the balance sheet structures of the two groups exhibiting apparently different investment practices. Variances in individual items are examined to show how these two groups employ their assets. The liabilities are examined in an effort to determine how the investment in marketable securities is financed.

The size of company in each of the two groups is compared for possible correlation between size and the amount of investment in marketable securities. The consideration of size includes the extent of variation in total assets from the smallest to the largest company in each group and average size of the companies in each group.

The questionnaire included in the appendix of this study was sent to the financial vice president or treasurer of the 22 corporations who had 10% or more of total assets in marketable securities at the end of 1964. The questionnaire was enclosed with an individually typed letter explaining that the writer was a graduate student at Drake University and needed the requested information for his thesis. A stamped self-addressed envelope was included for convenience in responding.

Twenty-one of the 22 companies who received the questionnaire responded, although two of the companies responding did not provide the requested information. Information on types of security investments was not obtained from three of the 22 companies, but the remaining 19 companies represent 99.3% of the total dollar amount invested in marketable securities by the entire group at the end of 1964.

CHAPTER II

ANALYSIS OF INDUSTRIAL CORPORATIONS

The balance sheet of a corporation depicts its financial structure at a given date. The presentation becomes more dynamic with several chronological balance sheets of a company as they will illustrate constant and changing practices, tendencies and trends. The following analysis, derived from ten consecutive balance sheets of one hundred industrial corporations, is concerned with the dynamic long-term picture and not particularly with the balance sheet structure at any one time during the period.

I. COMPARISON OF GROUPS

Group I, consisting of 22 companies, had more than 10% of total assets in marketable securities on December 31, 1964. Group II, the remaining 78 companies of the sample, had less than 10% of total assets invested in marketable securities on December 31, 1964. The asset and liability items to be examined are compared in the following analysis for differences between the two groups.

Although the number of companies included in each group varies considerably (22 to 78) the total assets are reasonably close in total dollar amount. Year-end 1964 figures show Group I had $23,126,717,342 while Group II had $24,800,016,252 in total assets. The average size of companies in each group shows considerable difference. The average size company in terms of total assets in Group I in 1964 was $1,051,214,424 as compared to $343,588,541 for Group II. The variation in average size will be considered in greater detail later in this report.

Table I presents the asset items of the two groups as percentages of total assets. Following this table each item will be examined and discussed.

TABLE I

MAJOR BALANCE SHEET ITEMS
OF UNITED STATES INDUSTRIAL CORPORATIONS
AS A PERCENT OF TOTAL ASSETS
1955 - 1964

GROUP I
(22 corporations with 10% or more of Total Assets
in marketable securities on December 31, 1964)

ITEM	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955
Cash	4.60%	4.62%	4.91%	5.18%	5.50%	5.53%	5.84%	5.94%	6.20%	6.57%
Marketable Securities	14.24	18.80	19.16	19.05	17.60	17.55	17.24	14.72	15.25	18.24
Receivables	12.44	11.36	10.28	10.18	8.03	8.97	8.51	8.51	9.62	9.72
Subsidiaries	2.60	2.61	2.58	2.56	2.81	2.55	2.56	2.62	2.58	2.55
Inventory	21.15	18.91	17.86	18.46	19.28	18.85	18.22	20.58	20.32	19.59
Net Property	40.76	39.45	39.36	41.45	43.37	42.06	44.33	44.37	42.50	40.05
Other Assets	4.21	4.25	5.85	3.12	3.41	4.49	3.30	3.26	4.53	3.28
Current Liabilities	16.05	15.11	14.90	14.37	14.33	14.34	14.34	16.33	17.27	17.50
Long-Term Debt	7.63	7.80	8.56	9.24	7.16	7.75	9.19	5.59	6.33	7.04
Preferred Stock	4.25	4.45	4.60	4.76	5.07	5.23	5.57	5.75	6.10	6.78
Stockholders' Equity	67.18	68.11	67.84	67.94	69.60	67.45	67.70	67.26	65.87	64.22
Other Liabilities	4.89	4.53	4.10	3.69	3.84	5.23	3.20	5.07	4.43	4.46

Extracted from Moody's Industrial Manuals

TABLE I (continued)

GROUP II

(composed of 78 companies with less than 10% of Total Assets in marketable securities on December 31, 1964)

ITEM	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955
Cash	4.47%	4.87%	4.99%	5.02%	5.12%	5.52%	5.88%	6.08%	6.86%	7.41%
Marketable Securities	4.32	4.38	4.40	4.46	6.03	6.66	5.70	4.60	4.78	7.95
Receivables	19.47	19.00	18.68	17.92	17.08	18.04	17.44	16.55	17.13	16.04
Subsidiaries	2.19	2.49	2.64	2.62	2.62	2.35	2.84	2.16	1.95	1.82
Inventory	29.14	28.89	28.27	28.12	28.55	27.84	27.67	30.18	30.55	29.52
Net Property	37.42	37.60	38.09	37.85	36.98	37.42	38.50	38.58	35.89	35.16
Other Assets	2.72	2.77	2.93	4.01	3.62	2.17	1.97	1.85	3.04	2.10
Current Liabilities	20.36	19.90	19.47	18.60	18.34	18.46	17.25	18.56	19.07	18.02
Long-Term Debt	14.78	14.04	14.88	15.00	15.42	15.31	16.21	15.62	15.39	15.16
Preferred Stock	2.07	2.13	2.02	2.13	2.22	2.34	2.53	2.89	3.23	3.91
Stockholders' Equity	60.59	60.10	60.22	60.09	61.40	60.82	60.65	59.62	58.72	60.16
Other Liabilities	2.20	3.83	3.41	4.18	2.62	3.07	3.36	3.31	3.59	2.75

Extracted from Moody's Industrial Manuals

II. CASH

Both groups I and II show a decline in the amount of cash relative to total assets over the 10-year period 1955-1964. It is interesting that Group I had less cash relative to total assets in 1955 than Group II and in 1964 still had less cash. Group II's cash position has been declining more rapidly than that of Group I and the difference in percentage of total assets in cash has narrowed.

The question of how much cash is necessary for operations has long been a major question with no precise answer. The answer as to how much cash is necessary is, of course, different for each company since the exact situation of each company is different. It is readily apparent that the cash needs of a company will vary from time to time, which further complicates the decision as to how much is necessary. This study shows a steady decline of 29.9% in the relative amount of cash based on 1955 cash for Group I, and a 34.6% decline for Group II during the 10-year period 1955-1964. The substantial decline of cash relative to total assets indicates that cash had probably been exceeding the actual amount necessary for operation of the business.

The decline in cash has occurred at a relatively rapid rate over a relatively short period of time. Continued profit mindedness and a drive toward full utilization of assets may result in a continued trend toward less cash relative to total assets until the barest possible minimum is approached, reached or in some cases possibly even exceeded.

The carrying of excess cash, usually in the form of demand deposits, does not contribute to the earnings of the individual company which owns this cash. These funds may be carried in deposits as contingent requirements of loans, in which case they are essential to the operation and not excess. Excessive cash is equivalent to investment in a nonproducing asset and the company is denied the employment of these assets in productive investments of any type. The banks at which these excessive balances were carried experienced the benefit from the situation so long as it continued. The obvious question then is where has the reduction in cash been re-employed by its corporate owner, and this will be examined later in this report.

III. MARKETABLE SECURITIES

The balance sheet item, Marketable Securities, may include any type of security for which there is a market. The individual securities included in Marketable Securities may be of any maturity. More important for this study is the constant level of investment. Although in the ten years studied the amount of Marketable Securities varied considerably, substantial amounts of securities were in both groups throughout the period. It appears that there is a constant level of investment over a long period of time regardless of type or maturity of specific securities owned.

It may be necessary to keep substantial amounts of cash readily available until it has been clearly established that the funds are not necessary for short-term operating needs. Funds invested in short-term or liquid investments may be committed to acquisition of other assets in the near future.

There is apparently a portion of the Marketable Securities portfolio which represents the employment of otherwise temporarily unemployed funds. Over a ten-year period it seems reasonable that most of these temporarily unemployed funds would at some time be needed in the operation. The Marketable Securities of Group I during the ten years studied varied from 14.24% to 19.16%, or a 4.94% variance. Group II's Marketable Securities at the same time varied from a low of 4.32% of total assets to a high of 7.95%, or a 3.63% variance. The lowest level of investment during the ten-year period was two to four times the variation during the period. The variance in Marketable Securities during the period probably represents the need for employment of the funds in other assets.

From this data it may be assumed that the corporations included in this study had from two to four times as much of their assets in Marketable Securities as was necessary for changes in the employment of these assets. There is, of course, the possibility that the full operational employment of these assets is outside the period studied, but the fact that the assets were not otherwise employed, either at the beginning or end of the period, makes this questionable.

The comparison of investment practices between Groups I and II shows a great variation in the amount of assets committed to Marketable Securities. Group I during the period averaged more than three times as great a percentage of assets employed in Marketable Securities as did Group II. To provide the funds for investment in Marketable Securities other assets must be decreased relative to total assets.

IV. RECEIVABLES

The balance sheet item Receivables is composed of trade receivables. This is the extension of credit, normally on a very short-term basis, to the purchaser of the producer's goods. The common practice in industry of extending this credit makes this item a competitive necessity and as one of the larger balance sheet items, receivables is certainly deserving of attention in this study.

The amount of total assets invested in receivables has varied considerably during the period studied. In spite of the fluctuations, a trend during the period of larger amounts of assets employed in receivables is readily discernable. This increase in receivables seems logical in light of the many reports and studies which have been done on the increased use of credit.

The variance between Groups I and II in amount of assets employed in receivables is interesting. During the ten years studied, Group I utilized an average of 9.76% of total assets in receivables while Group II utilized an average of 17.74%. Group II then used 1.8 times as much of its assets in receivables as did Group I. There is no readily apparent difference in the type of business between the two groups since both include companies in the same businesses. The one apparent difference between the groups is size and with this in mind we find many questions as to how this can affect trade credit practices. For the purposes of this study, it suffices to note the variation and its extent.

V. SUBSIDIARIES

The balance sheet item Subsidiaries is composed generally of unconsolidated subsidiaries. A key question here is why they are unconsolidated and there appears to be two major reasons. A minority interest in a subsidiary may be the reason for its being treated on an unconsolidated basis or the fact that the subsidiary is in a totally dissimilar field of operation to that of its parent company may be the cause. The fact that there is variation in accounting practice leaves a question as to the consideration of this item at all, other than as a factor of employment of assets. It is reasonable to assume that there are many subsidiaries which were reported on a consolidated basis in the balance sheets used here. There is considerable tax advantage to subsidiaries since earnings of less than $25,000 in one year by a taxable entity are not subject to the federal income sur tax.

This item has shown no marked trend or degree of change during the period studied. There does not appear to be any apparent variation between the two groups of companies in this item with roughly the same amount of total assets employed by both groups in this way. Since this is the smallest individual item considered and shows no particular change or variation between the groups, this item will be disregarded in this study.

VI. INVENTORY

This item of the balance sheet is composed of raw materials, goods in process and finished goods. Inventory is essential competitively since the time between the sales order for the finished item and the expected delivery is in practice too short to allow for the lag time in obtaining raw materials and processing them into finished goods. The exact level of inventory is generally subject to the judgment of management based on numerous factors. A major factor influencing inventory is the amount of time required for obtaining raw materials and for processing and assembly into the finished good or material. Other factors would include things such as sales, competition, industry practice and rate of turnover.

Inventory is the second largest item of assets relative to total assets and is, therefore, an important one. Inventory has had close attention in recent years from management seeking to reduce it and thereby to reduce costs. Fluctuations during the period studied, however, can be closely tied to general economic changes. As sales increase, increased inventory becomes necessary and it rises through increased production. As sales decline, excessive amounts of raw materials relative to reduced production and finished goods relative to sales accumulate, which, as they are reduced, are not totally replaced until sales again warrant. There does not appear to be any substantial change in inventory for either group during the period which indicates a trend but only short-range changes.

An interesting fact which does appear in this study is the variation of amount of total assets employed in inventory between the two groups. Group I during the ten year period had an average of 19.32% of total assets in inventory while Group II had an average of 28.87%, or 1.4 times as much as Group I. Again there does not appear to be any fundamental difference between the groups other than size.

VII. NET PROPERTY

The largest asset item on the balance sheet relative to total assets is Net Property. This item is composed of all the property owned which is generally included in, directly or indirectly, the productive or operating function of a company. This item includes real estate, buildings, machinery, tools and equipment. All of these items taken at cost less depreciation and cost depletion results in the figure represented by Net Property.

As the largest asset item, Net Property deserves the attention of this study but not too much of importance is revealed. Fluctuations within the period closely follow general economic conditions and there does not appear to be any outstanding long-term trend in the period studied other than one of general growth. The connection to the general economy is direct and apparent. Increased demand as reflected in sales leads to the decision to increase capacity and as this building exceeds depreciation, Net Property is increased.

The comparison of Net Property for Groups I and II shows Group I committing slightly more of its assets to this area. During the ten years studied, Group I had an average of 41.77% of total assets in Net Property while Group II had 37.35%. This difference, in itself 4.42%, is not remarkable but is the reverse of what was observed in Receivables and Inventory. The greater investment of Group I in Net Property over that of Group II may indicate greater productive capacity, but it should be remembered the amount invested is not necessarily a measure of productivity.

VIII. CURRENT LIABILITIES

Current Liabilities generally include accounts payable (usually trade items), short-term debt, current maturities of long-term debt and other liabilities due and payable in one year or less. This category reflects, at least in part, the way in which current operations are financed.

Funds borrowed on a short-term basis are held by many to be used only for investment in self-liquidating short-term items such as receivables and inventory. There is a portion of the funds borrowed on a short-term basis which ultimately are funded into long-term debt or replaced by equity funds. The cost of short-term money can be considerably higher than long-term borrowings, particularly when compensating balances which are essential to bank lines of credit are considered. Because of the high cost of short-term debt, that which stabilizes and becomes relatively permanent is usually funded into long-term debt long before it can be replaced with equity through retained earnings.

Since current liabilities provide funds for short term changes in operating needs, the changes in asset items which fluctuate in relation to short term general economic changes are first reflected in current liabilities. In spite of the year-to-year fluctuations, Group I does appear to display some tendency toward less use of current liabilities during the ten years studied. The longer term trends in current liabilities, assuming reasonably steady rates of growth, may ultimately result in some shift of these liabilities either to long-term debt or to equity.

The use of current liabilities relative to total assets shows some variation worth note between the two groups. Group I had an average for the ten years 1955-1964 of 15.45% of total assets financed by current liabilities while Group II averaged 18.80%. This difference of 3.35% reflects the larger capital base or as it may be described, stockholders' equity, of Group I as compared to Group II.

IX. LONG-TERM DEBT

The balance sheet item, Long-Term Debt, is generally composed of obligations for borrowed money with a maturity beyond one year. This debt is incurred to finance one or both of two broad categories of assets. The most common and direct purpose of long-term debt is to finance the purchase of fixed assets which by their nature tend to be long-term investments. The second purpose of this form of financing is to add to working capital or in effect finance current assets. In the case of both Groups I and II of this study, Net Property alone constantly and by a substantial margin exceeded long-term debt. It is possible, therefore, to assume that long-term debt finances only additions to fixed assets, but the tracing of individual dollars is at best an arbitrary pastime.

Neither Group I nor Group II showed any great fluctuations of long-term debt relative to total assets during the period studied. The relatively stable relationship of long-term debt to total assets indicates that the growth of the companies has been financed with long-term debt in proportion to the growth of capital and other liabilities.

A comparison of Groups I and II on Long-Term Debt is worthwhile since there is considerable variance between them. Group I had an average of 7.63% of total assets financed in this way during the period studied while Group II had an average of 15.18%, or nearly twice as much on a relative basis.

X. PREFERRED STOCK

Preferred Stock is a common part of the long-term financing of industrial corporations. Existing tax laws and regulations do not permit deduction of dividends paid as an expense for tax purposes and, as a result, Preferred Stock is a very expensive means of financing on an after-tax basis. Recent years have seen a decline in the use of Preferred Stock as a part of long-term financing and, although still quite common, it is slowly dwindling as retirement exceeds new issues.

Both Groups I and II show evidence of the decline in use of Preferred Stock. Group I shows a decline during the ten years studied from 6.78% of total assets in 1955 to 4.25% in 1964 while Group II shows a decline from 3.91% to 2.07%. Although these declines are substantial, the amounts do not reflect a substantial portion of total assets since even at the beginning of the period studied the amount was not large relative to total assets for either group.

It should be noted that Group I's use of Preferred Stock was substantially greater than Group II. This may reflect the older company which used this medium when it was more attractive and commonly used in earlier years. The rate of retirement of Preferred Stock is typically slow with some of it having no provision for retirement.

XI. STOCKHOLDERS' EQUITY

Stockholders' Equity may be described as representing the book value of the ownership of a company, including capital, paid in surplus and earned surplus (retained earnings). This item might also be described as the difference between assets and liabilities which in balance sheets is included with liabilities to make the balance sheet balance. It is, at any rate, the largest balance sheet item in this study.

Groups I and II show considerably different behavior in the amount of Stockholders' Equity relative to total assets. Group I in the period studied had an average of 67.32% of total assets financed by equity, while Group II had 60.24%.

During the ten-year period studied, Group I showed a trend of increasing Stockholders' Equity relative to total assets with growth from 64.22% in 1955 to 67.18% in 1964. Group I also showed considerable fluctuation of this item during the period. Group II remained steady through the period with an insignificant change from 60.16% in 1955 to 60.59% in 1964. This indicates growth in equity exceeded growth of total assets for Group I, but very nearly precisely kept pace for Group II. Since most companies in both groups do pay dividends, this action was to some extent controlled by management.

XII. OTHER ASSETS AND LIABILITIES

All balance sheet items other than those specifically listed and discussed were included in Other Assets or Other Liabilities, as applicable. Although in total these items do represent a substantial percentage of total assets, by individual part they are insignificant. The individual parts of these items are diverse and as conglomerates defy any reasonable analysis. It should be noted that these Other Assets and Other Liabilities for Group I do, on average, noticeably exceed those of Group II.

XIII. SIZE OF COMPANY IN RELATION TO MARKETABLE SECURITY INVESTMENTS

The average size of the 22 companies included in Group I at year end 1964 was $1,051,214,424 in total assets. The size of individual companies in this group ranged from $96,465,619 to $10,292,828,528 in total assets and four companies in this group had assets exceeding one billion dollars each at year end 1964. The four huge companies account for $19,511,699,743 of the total assets of $23,126,717,342 in 1964, or 84% of the total for Group I. These figures show that Group I is dominated by these four gigantic companies.

The average size of the 78 companies included in Group II is $343,548,541 in total assets at year end 1964. The size of individual companies in Group II at this time ranged from $57,971,454 to $1,606,567,761. Four companies of Group II also have total assets exceeding one billion dollars. The four billion dollar companies account for $5,276,743,489 of Group II's $24,800,016,252 of total assets in 1964. The less than one fourth of total assets in Group II which represent the four giant companies of this group indicates the lesser influence exerted by the huge companies in this group as compared to the huge companies in Group I.

TABLE II

CLASSIFICATION OF COMPANIES
BY SIZE
YEAR END 1964

Total Assets	Number of Companies Group I	Group II
Over $1,000,000,000	4	5
$750,000,000 to $1,000,000,000	1	5
$500,000,000 to $750,000,000	-	5
$250,000,000 to $500,000,000	2	14
$100,000,000 to $250,000,000	14	35
Under $100,000,000	1	14

It appears from Table II that size has an influence on the tendency to invest large amounts in Marketable Securities. The following Table III examines relative amount of total assets invested in Marketable Securities in relation to size only.

Table III again seems to indicate that size has influence on the tendency to invest in Marketable Securities. Companies with over one billion dollars appear to be investing a major amount of assets in Marketable Securities but General Motors and U.S. Steel account for 58.5% of the total assets of these companies and 73.8% of their

TABLE III

SECURITY HOLDINGS
AS A PERCENT OF
TOTAL ASSETS
BY SIZE OF COMPANY
YEAR END 1964

Total Assets	Number of Companies	Percent of Total Assets in Marketable Securities
Over $1,000,000,000	9	11.0%
$750,000,000 to $1,000,000,000	6	5.2
$500,000,000 to $750,000,000	5	3.9
$250,000,000 to $500,000,000	16	5.6
$100,000,000 to $250,000,000	49	9.3
Under $100,000,000	15	4.6

Marketable Securities investments. Exclusion of General Motors and U.S. Steel from the companies with over one billion dollars of total assets in this study leaves seven companies with 6.9% of total assets in Marketable Securities at year end 1964. There is then doubt of a correlation between size and tendency to invest based on the data of this study.

XIV. REALLOCATION OF ASSETS TO PROVIDE FUNDS FOR MARKETABLE SECURITY INVESTMENTS

The heavy utilization of assets in Marketable Securities relative to total assets in Group I means that assets are being allocated differently between the two groups. Some other asset or assets in Group I must be less than in Group II relative to total assets to provide the difference between the ten year average for the groups in Marketable Securities of 11.85% of total assets.

TABLE IV

TEN YEAR AVERAGE
OF ASSETS
RELATIVE TO TOTAL ASSETS
1955 - 1964

Asset Items	Group I	Group II	Difference of Group I From Group II
Cash	5.49%	5.65%	(.16)%
Marketable Securities	17.18	5.33	11.85
Receivables	10.61	17.73	(7.12)
Subsidiaries	2.60	2.37	.23
Inventory	19.32	28.87	(9.55)
Net Property	41.77	37.35	4.42
Other Assets	3.03	2.70	.33

In addition to the difference in Marketable Securities, asset items vary considerably in three other areas. The 11.85% greater amount of total assets utilized for Marketable Securities on average for ten years by Group I compared to Group II is offset readily by less Receivables and Inventory in Group I than in Group II. This is particularly interesting since all three items are current assets in ordinary usage. The data above seems to indicate that the use of assets in Marketable Securities is simply use of cash created by changes in other current assets.

XV. STRUCTURE OF LIABILITIES OF GROUPS I AND II

There are substantial differences between Groups I and II in the makeup of their liability items relative to total assets. There may be relationships between certain asset items and liability items, but it must be recognized that the tracing of individual dollars is a hopeless speculation even for insiders with full information.

TABLE V

COMPARISON OF LIABILITIES
RELATIVE TO TOTAL ASSETS
AVERAGED FOR THE TEN YEARS
1955 - 1964

Liability Item	Group I	Group II	Comparison of Group I to Group II
Current Liabilities	15.45%	18.80%	(3.35)%
Long Term Debt	7.63	15.18	(7.55)
Preferred Stock	5.26	2.55	2.71
Stockholders' Equity	67.32	60.24	7.08
Other Liabilities	4.34	3.23	1.11

Current assets for Group I are 52.6% of total assets on average as shown in Table IV while current liabilities as shown above are 15.4% of total assets. Current assets for Group II are 57.6% of total assets on average as shown in Table IV while current liabilities as shown above are 18.8% of total assets.

Long-term debt for Group I is 7.63% of total assets while fixed assets are 41.77%. Group II's long-term debt is 15.18% and its fixed assets 37.35% of total assets. Group I then has less than one fifth of its fixed assets in long-term debt while Group II has nearly one half of its fixed assets in long-term debt relative to total assets on an average basis for the ten years studied.

The 7.08 difference in stockholders' equity, between Group I with 67.32% of total assets and Group II with 60.24% in this liability form, is interesting. This difference between Groups I and II in stockholders' equity nearly equals the difference in long-term debt of the groups. It might be assumed then that Group I is substituting equity capital for long term borrowed funds as compared to Group II, at least in part.

As part of this study it is interesting to compare the 7.08% difference in stockholders' equity to the 11.85% difference in marketable securities between the two groups. Even including the difference in preferred stock of 2.71% this is only 9.79% difference in base capital between the groups compared to the 11.85% difference in marketable securities.

XVI. INDUSTRY COMPARISONS

A comparison of the 100 individual companies included in this study or the 22 companies in Group I and the 78 in Group II shows no tendency of companies to be heavily invested in marketable securities on the basis of industry. The great diversity of type of business of the one hundred companies studied shows no apparent common characteristic. Twenty-five companies not included in the one hundred studied were compared to six companies in Group I on the basis of being in the same business and only one company had more than ten percent of total assets in marketable securities.[1] There is no apparent connection between type of business and a high level of investment of assets in marketable securities.

Group I includes the Whirlpool Corporation which is controlled by Sears Roebuck. G. D. Roper Inc. and De Soto Chemical Coatings Corp. are also controlled by Sears. Neither Roper nor De Soto had 10% or more of its total assets in marketable securities at year end 1964.[2] No evidence of heavy investing by companies with common ownership or affiliation is revealed.

XVII. TYPES OF INVESTMENTS

The 22 companies included in Group I were surveyed as to what types of marketable securities they owned at year end 1964. Twenty-one companies responded but two did not furnish the information requested. The responses which were received accounted for 99.3% of the total dollar amount invested in marketable securities by Group I in 1964.

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[1] Moody's, 1965, *Op. Cit.*

[2] Moody's, 1965, *Op. Cit.*, p. 2557-2558.

TABLE VI

TYPES OF INVESTMENTS
FOR GROUP I
YEAR END 1964

Type	Percent of Total Amount Invested
Government Bonds	45.9%
Treasury Bills	6.9
Municipal Bonds	6.5
Other Bonds	1.0
Certificates of Deposit	27.3
Bankers Acceptances	0.0
Commercial Paper	6.4
Mortgages	1.6
Preferred Stock	.2
Common Stock	.8
Other Securities	2.7

Government securities, certificates of deposit and commercial paper represent 86.5% of the total amount invested. Treasury bills and certificates of deposit are issued with maturities of normally no more than one year. Commercial paper is usually issued with maturities of no more than nine months. Government bonds may have maturities of less or more than one year but they are highly marketable and are, therefore, liquid regardless of maturity. The industrial corporation as an investor in marketable securities appears to show a preference for quality and liquidity rather than yield.

Three companies, General Motors, U. S. Steel and E. I. du Pont de Nemours make up approximately 78.4% of the total amount of Group I's marketable securities at year end 1964. These companies had nearly all of their marketable securities in the highly liquid types. Approximately 56.5% of these three companies' marketable securities were in government bonds, 5.8% in treasury bills, 2.1% in municipal bonds, 3.7% in commercial paper and 6.2% in other securities.[1]

Without the three multi-billion dollar companies, the investments of Group I at year end 1964 change markedly. Of the remainder, 8.40% is in government bonds, 10.9% in treasury bills, 22.1% in municipal bonds, 4.4% in other bonds, 19.0% in certificates of deposit, 15.7% in commercial paper, 7.5% in mortgages, .1% in preferred stock, 3.7% in common stock and 8.2% in other securities.[2]

XVIII. TRENDS

The growth in total assets of both groups is readily discernable. Individual items of assets and liabilities in

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[1]See *Appendix*, p. 46-47. [2]*Ibid*.

relation to total assets show considerable fluctuation during the period. These fluctuations and the relatively short period of ten years studied leave doubt as to a trend in individual balance sheet items.

Group I current liabilities appear to have declined while long-term debt has remained relatively constant. Group II current liabilities show upward movement but long-term debt seems to be declining. Preferred stock seems to be declining for both groups. Stockholders' equity for Group I appears to be increasing while Group II's is relatively level in relation to total assets. Although these appear from the data here to be trends, more information is necessary before they could be documented.

CHAPTER III

SUMMARY AND CONCLUSIONS

I. RESTATEMENT OF THE PROBLEM

The supposed tendency of industrial corporations to utilize their assets for investments not concerned with production of goods with their own facilities has been examined here to determine its existence. This tendency, once established, has been examined to determine extent and apparent trends.

The data were developed for this study by extracting the major items contained in 1000 balance sheets as reported to the Securities and Exchange Commission. The balance sheets included represent 100 industrial corporations, selected from the Fortune 500, financial position as reported for the ten years from 1955 through 1964. A division of the one hundred companies was made into two groups with one group having 10% or more of total assets included in marketable securities. All companies not meeting this criteria were included in the other group. Comparisons and analysis of the composite data were then made. Examination of the marketable security investments for the group using more than 10% of total assets in this way was made by questionnaire.

II. CONCLUSIONS

The investment of 10% or more of total assets in marketable securities by 22% of the one hundred companies studied indicates a tendency for production corporations to function as financial intermediaries. Ten percent is a substantial amount of total assets, and considerably more than the amount of assets allocated by 78% of the companies studied which did not have 10% of their assets in marketable securities. The fact that this level of investment continued over a ten year period seems to indicate that these investments outside the operating area of the companies studied were more than temporary. This leads then to the conclusion that the 22% of the companies in this study which exhibited relatively heavy investment practices have changed their function as producing organizations only, and also function as financial intermediaries. These companies utilize savings which have been invested directly or indirectly in them to invest in marketable securities.

The 22% of the companies studied here which exhibited high levels of investment in marketable securities as compared to the 78% which did not exhibit such tendency indicates that the majority of industrial corporations are apparently staying primarily with their production function. The 22% of the study which are substantial investors, however, is sufficient to be worth consideration.

The levels of investment in marketable securities relative to total assets of Group I seem to have been accomplished by reduction of other assets relative to total assets. The reduction of asset items other than marketable securities relative to total assets implies there may be more efficient use of the assets involved in production by Group I than by Group II.

The fact that Group I of this study has been able to reduce the proportion of assets in the operation of the businesses relative to total assets could lead to questions of the rate of retaining earnings. Retaining earnings in a company that is employing less of its assets in its purported production function certainly could be questioned by owners of shares in that company. One direction of question might be why the assets freed are not used to further expand the company in its own business. Another direction of question might be of the management's right to usurp the shareholders' right of choice of investment by retaining and investing earnings not necessary for the continued basic function of the company.

If the industrial corporation is not to stay strictly to its production function but is to become an investing entity then it is strange that the management is not held responsible for a maximum return on assets utilized in this way as well as in the production area. Protection and maintenance of principal is certainly the charge of any institution investing the funds of its owners or others; however, most investing institutions also consider maximum yields with reasonable safety of principal to be their goal. Since yields do change, investment in short-term securities may expose the investor to reinvestment at lower yields than were available at the time of the original investment. It appears, then, that the industrial corporation has in some cases taken on the investor function but has not fully accepted the responsibilities which go with it.

The industrial corporation, as seen in this study, is an important source of investment funds for security investments. The withdrawal of the industrial corporation's funds from demand deposit accounts in commercial banks and the employment of these funds in marketable securities removes these funds from the direct control of monetary control policies implemented by central banking authorities. Although the extensive use of marketable securities for employment of industrial corporation's funds appears limited to some large corporations at this time, it seems logical that it may spread. Potentially very large amounts of funds could be channeled into the securities investment area without the opportunity of monetary authority to exert control under existing regulatory methods.

It appears that ten years is too short a period to clearly identify trends and document them for industrial corporation balance sheet items. Perhaps more important to this study is the high level of marketable security investment for 22% of the companies studied over the ten years considered.

III. RECOMMENDATIONS FOR FURTHER STUDY

Analysis of additional years to the ten studied here should reveal long-term trends. Inclusion of years prior to 1955 should be able to pinpoint the beginning of this tendency and, together with the data here, clearly show the direction.

Analysis in greater depth of investment practices would be worthwhile. Maturity dates of investments might provide insight into investment objectives since it could indicate needs for specific maturities. The analysis of purchases and sales for patterns of trading and portfolio management practices would further develop knowledge in this area.

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APPENDIX

(Name of Corporation)	December 31, 1964
Government Bonds	$
Treasury Bills	$
Municipal Bonds	$
Other Bonds	$
Certificates of Deposit	$
Bankers Acceptances	$
Commercial Paper	$
Mortgages	$
Preferred Stock	$
Common Stock	$
Other Securities	
	$
	$
	$

List of Companies Studied

Group I

Aluminum Company of America

American Cyanamid Company

Brown Shoe Company

Bucyrus - Erie Company

Carnation Company

Carrier Corporation

Certain - Teed Products Corporation

Curtiss - Wright Corporation

E. I. Du Pont De Nemous & Company

General Motors Corporation

Glen Alden Corporation

Island Creek Coal Company

Johnson & Johnson

Otis Elevator Company

Parke, Davis & Company

Polaroid Corporation

Schering Corporation

Smith Kline & French Laboratories

Stewart - Warner Corporation

United States Steel Corporation

Whirlpool Corporation

Wm. Wrigley Jr. Company

Group II

Addressograph - Multigraph Corporation

Allegheny Ludlum Steel Corporation

American Brake Shoe Company

American Can Company

Amsted Industries, Inc.

Atlas Chemical Industries, Inc.

Avco Corporation

Baldwin - Lima - Hamilton Corporation

Bigelow - Sanford, Inc.

Borg Warner Corporation

California Packing Corporation

Calument & Hecla, Inc.

Canada Dry Corporation

The Carborundum Company

J. I. Case Company

Chicago Pneumatic Tool Company

Clevite Corporation

Colorado Fuel & Iron Company

Continental Baking Company

Commercial Solvents Corporation

Container Corporation of America

The Cooper - Bessemer Corporation

The Cudahy Packing Company

Cutler - Hammer, Inc.

Deere & Company

The Eagle - Picher Company

The Electric Storage Battery Company

Endicott Johnson Corporation

Ex-Cell-O Corporation

The Flintkote Company

General American Transportation Corporation

General Foods Corporation

Genesco Inc.

Goodyear Tire & Rubber Company

The Great Western Sugar Company

H. J. Heinz Company

Howe Sound Company

Ingersoll Rand Company

Interchemical Corporation

International Telephone & Telegraph Corporation

Jones & Laughlin Steel Corporation

Joy Manufacturing Company

Libbey - Owens - Ford Glass Company

Link - Belt Company

Lone Star Cement Corporation

M. Lowenstein & Sons, Inc.

Mack Trucks, Inc.

McDonnell Aircraft Corporation

McGraw - Hill Publishing Co., Inc.

Mead Johnson & Company

Mohasco Industries, Inc.

National Gypsum Company

National Lead Company

North American Aviation Inc.

Outboard Marine Corporation

Owens - Corning Fiberglas Corporation

Pennsalt Chemicals Corporation

Pepsi Cola Company

The Pillsbury Company

The Pure Oil Company

Rayonier Incorporated

Republic Steel Corporation

Revere Copper & Brass, Incorporated

R. J. Reynolds Tobacco Company

S. C. M. Corporation

Scott Paper Company

The Sherwin Williams Company

Simmons Company

The Singer Manufacturing Company

Stanley Warner Corporation

Sunbeam Corporation

United Merchants & Manufacturers, Inc.

United Shoe Machinery Corporation

U. S. Industries, Inc.

United States Plywood Corporation

Westinghouse Electric Company

Weyerhaeuser Company

Worthington Corporation

TABLE VII

MAJOR BALANCE SHEET ITEMS
OF UNITED STATES INDUSTRIAL CORPORATIONS
1955 - 1964
Group I

	1964	1963	1962	1961	1960
Cash	$ 1,064,993,708	$ 1,030,883,236	$ 1,060,330,675	$ 1,085,638,814	$ 1,084,581,595
Marketable Securities	3,292,642,324	4,190,563,354	4,141,295,287	3,988,516,269	3,470,771,757
Receivables	2,876,404,490	2,532,169,313	2,221,461,173	2,131,031,844	1,583,215,778
Subsidiaries	601,038,172	581,871,188	557,145,632	535,437,549	554,328,836
Inventory	4,890,362,520	4,215,412,948	3,858,818,418	3,864,149,673	3,801,998,687
Net Property	9,426,784,907	8,796,191,952	8,506,430,979	8,678,597,499	8,551,024,046
Total Assets	$23,126,717,342	$22,295,442,045	$21,608,127,490	$20,936,740,582	$19,715,687,698
Current Liabilities	$ 3,711,311,096	$ 3,368,219,120	$ 3,219,677,808	$ 3,009,150,480	$ 2,825,675,066
Long-term Debt	1,765,319,789	1,739,185,190	1,848,923,594	1,935,419,160	1,412,617,463
Preferred Stock	983,034,850	992,151,409	993,406,809	996,655,409	998,771,759
Equity	15,537,687,659	15,185,460,304	14,658,710,547	14,223,869,512	13,722,429,408

TABLE VII (continued)

Group I

	1959	1958	1957	1956	1955
Cash	$ 1,057,776,655	$ 1,047,521,897	$ 1,031,580,042	$ 1,012,213,160	$ 1,001,020,825
Marketable Securities	3,356,528,275	3,094,429,268	2,557,952,149	2,489,171,328	2,781,044,493
Receivables	1,714,637,322	1,527,879,402	1,479,239,980	1,571,462,349	1,480,786,880
Subsidiaries	487,375,213	459,799,959	454,863,369	421,795,848	388,224,440
Inventory	3,604,327,127	3,269,955,763	3,577,151,261	3,316,776,062	2,985,105,747
Net Property	8,042,204,757	7,956,125,520	7,710,792,669	6,935,627,855	6,103,754,093
Total Assets	$19,120,997,649	$17,946,456,110	$17,379,160,989	$16,318,712,707	$15,238,687,257
Current Liabilities	$ 2,741,701,452	$ 2,572,657,123	$ 2,838,166,632	$ 2,818,017,241	$ 2,666,061,678
Long-term Debt	1,482,112,583	1,649,282,418	971,059,680	1,032,569,978	1,073,371,477
Preferred Stock	999,412,299	1,000,014,579	999,950,179	996,238,539	1,033,194,479
Equity	12,896,799,572	12,150,720,447	11,689,860,695	10,748,528,758	9,786,693,690

TABLE VIII

MAJOR BALANCE SHEET ITEMS
OF UNITED STATES INDUSTRIAL CORPORATIONS
1955 - 1964
GROUP II

	1964	1963	1962	1961	1960
Cash	$ 1,176,555,533	$ 1,160,631,146	$ 1,126,889,875	$ 1,090,168,022	$ 1,043,124,163
Marketable Securities	1,071,969,597	1,044,129,222	993,608,247	969,923,600	1,228,400,474
Receivables	4,828,121,868	4,530,912,401	4,221,470,337	3,893,143,974	3,481,974,249
Subsidiaries	542,456,559	594,587,024	596,694,624	569,234,108	533,173,721
Inventory	7,227,822,470	6,888,677,364	6,386,601,791	6,109,024,251	5,818,922,029
Net Property	9,280,706,625	8,966,335,712	8,606,387,928	8,222,746,347	7,538,026,855
Total Assets	$24,800,016,252	$23,844,531,355	$22,594,368,493	$21,722,052,175	$20,383,627,438
Current Liabilities	$ 5,050,476,091	$ 4,745,113,095	$ 4,400,140,921	$ 4,041,206,333	$ 3,739,081,106
Long-term Debt	3,666,242,813	3,347,264,201	3,362,425,585	3,259,275,032	3,142,962,198
Preferred Stock	513,568,478	508,609,175	457,446,342	463,191,669	452,717,759
Equity	15,025,771,825	14,331,737,985	13,607,518,752	13,053,552,429	12,514,447,191

TABLE VIII (continued)

GROUP II

	1959	1958	1957	1956	1955
Cash	$ 1,079,623,035	$ 1,073,226,858	$ 1,078,870,781	$ 1,116,920,381	$ 1,094,862,429
Marketable Securities	1,303,721,672	1,040,087,880	817,500,005	777,707,816	1,174,930,979
Receivables	3,532,080,371	3,183,403,074	2,937,884,867	2,788,401,647	2,369,719,237
Subsidiaries	459,707,909	518,122,327	383,546,362	316,904,167	269,679,241
Inventory	5,449,000,186	5,050,419,604	5,357,469,346	4,973,757,439	4,362,586,837
Net Property	7,323,733,371	7,026,910,926	6,850,622,293	5,842,336,888	5,194,966,235
Total Assets	$19,573,748,671	$18,249,323,362	$17,754,765,480	$16,278,340,781	$14,776,261,196
Current Liabilities	$ 3,612,379,929	$ 3,147,600,402	$ 3,293,174,063	$ 3,103,718,078	$ 2,638,256,175
Long-term Debt	2,996,863,959	2,958,700,990	2,774,223,930	2,505,716,373	2,240,538,148
Preferred Stock	458,632,988	461,806,600	513,900,021	525,830,024	577,918,812
Equity	11,905,696,126	11,068,766,497	10,585,996,658	9,558,868,938	8,889,619,842

TABLE IX

INFORMATION ON TYPES OF SECURITY INVESTMENTS OBTAINED FROM QUESTIONNAIRE

	Government Bonds	Treasury Bills	Municipal Bonds	Other Bonds	Certificates of Deposit	Bankers Acceptances
Aluminum Company of America	advises not excess funds type but investments in unconsolidated subsidiaries					
American Cyanamid Company	$ 16,582,000	$ 12,512,000	$ 70,600,000		$ 7,000,000	
Brown Shoe Company		4,598,250	2,005,625		6,039,079	
Bucyrus - Erie Company		1,000,000			7,015,000	
Carnation Company	refused information as a matter of policy					
Carrier Corporation	2,000,000		6,270,000		5,000,000	
Certain-teed Products Corporation		5,634,224				
Curtiss Wright Corporation		2,606,424	69,201,439		16,615,955	
E. I. du Pont de Nemours & Co.	144,165,400	150,663,282	55,800,763		15,190,322	
General Motors	845,774,331				249,998,616	
Island Creek Coal Company		6,167,283				
Johnson & Johnson	3,600,000	11,325,000			8,020,000	
Otis Elevator Company		793,000			20,000,000	
Parke Davis & Company	9,176,138		1,180,092	$ 1,371,883	43,703,019	
Polaroid Corporation	1,000,000	5,900,000	3,115,000		8,000,000	
Schering Corporation	890,000	3,000,000	1,010,000			
Smith, Kline & French Laboratories	12,445,000	20,786,344		27,082,562		
Stewart - Warner Corporation		3,367,000			13,780,000	
United States Steel Corporation	470,659,903				499,047,659	
Whirlpool Corporation						
Wm. Wrigley, Jr. Company	5,956,609			3,157,265		
Glen Alden Corp.	no response					
	$1,512,249,381	$228,352,807	$212,660,919	$31,611,710	$899,409,650	- 0 -
	45.9%	6.9%	6.5%	1.0%	27.3%	0%
	Unaccounted for .7%					

TABLE IX (continued)

	Commercial Paper	Mortgages	Preferred Stock	Common Stock	Other Securities
Aluminum Company of America					
American Cyanamid Company	$ 1,950,000				$ 2,620,000
Brown Shoe Company	5,962,065				
Bucyrus - Erie Company	8,000,000				
Carnation Company					
Carrier Corporation	15,100,000				454,000
Certain - teed Products Corporation		$53,207,168			627,410
Curtiss Wright Corporation	13,575,127			$ 977,409	6,624,662
E. I. du Pont de Nemours & Co.	97,336,570				47,421,731
General Motors					7,006,364
Island Creek Coal Company			(affiliates)	4,612,500	754,902
Johnson & Johnson	5,000,000				4,300,000
Otis Elevator Company	10,904,669				350,467
Parke Davis & Company					
Polaroid Corporation	18,200,000				
Schering Corporation	7,880,000				2,040,000
Smith, Kline & French Laboratories	3,192,414				
Stewart - Warner Corporation	5,024,000				
United States Steel Corporation					
Whirlpool Corporation	17,000,000		$800,000	18,620,000	17,175,000 (19,249,000)
Wm. Wrigley, Jr. Company				2,657,237	
Glen Alden Corp.					
	$209,124,845	$53,207,168	$800,000	$26,867,146	$89,374,536
	6.4%	1.6%	.2%	.8%	2.7%